

Substitute for Form 1449/A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet	1	of	4
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Complete if Known

Application Number	09/982,515
Filing Date	October 18, 2001
First Named Inventor	Gary L. Bowlin
Group Art Unit	1632 1657
Examiner Name	Not Yet Assigned
Attorney Docket Number	49122-0161 (49122-263824)

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

Examiner
Signature

Date
Considered

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent document, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language translation is attached.

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First Named Inventor	Gary L. Bowlin
Group Art Unit	1632/657
Examiner Name	Not Yet Assigned
Attorney Docket Number	49122-0161 (49122-263824)

OTHER INFORMATION - NON PATENT LITERATURE DOCUMENTS

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published

Examiner Initials	Cite No. ¹	
BA	✓	BOLAND <i>et al.</i> , "Tailoring a Poly (Glycolic Acid) Tissue Engineering Scaffold by Utilizing Electrostatic Processing," Abstract of Presentation at the 4th International Symposium on Frontiers in Biomedical Polymers, Williamsburg, VA, May 16, 2001.
BB	✓	BOLAND <i>et al.</i> , "Electrospinning of Tissue Engineering Scaffolds," Paper Presented at American Chemical Society Div. Of Polymeric Materials: Science and Engineering, Presented August 26, 2001, Chicago, IL, Publication approximately July 2001.
BC	✓	BOWLIN <i>et al.</i> , "Electrospinning of Biomaterials," Abstract for Presentation at the Second Conference on the Development of Technology in Medicine for Virginia, at the University of Virginia, Presented November 2, 1999.
BD	✓	BOWLIN <i>et al.</i> , "Electric Field-Mediated Processing of Biomaterials: Toward Nanostructured Biomimetic Systems," Abstract of Presentation at SPIE Annual Meeting, Newport Beach, CA, presented March 8, 2001.
BE	✓	BOWLIN, G., "The New 'Spin' on Tissue Engineering Scaffolds," Abstract for Keynote Address at the 4th International Symposium on frontiers in Biomedical Polymers, Williamsburg, VA, Presented May 17, 2001.
BF	✓	BOWLIN <i>et al.</i> , "Electrospinning of Biomaterials," Paper for Presentation at Fiber Society Spring 2001 Meeting, Raleigh, NC, Presented May 23, 2001.
BG	✓	BOWLIN, G., "Biomimicking Small Caliber Vascular Construct Engineering," Abstract for Presentation at 2001 Whitaker Foundation Biomedical Engineering Conference, La Jolla, CA, Presented August 9, 2001.
BH	✓	DEITZEL, J.M. <i>et al.</i> , "Generation of Polymer Nanofibers Through Electrospinning", Army Research Laboratory, 1999, pp. 1-33, ARL-TR-1989.
BI	✓	EKOMEDSERVIS: 'WPI World Patent Information Derwent, Derwent, GB', WPI World Patent Information Derwent, Derwent, GB, Vol. 44, Nr. 95, London, GB, (XP002046663)
BJ	✓	ESQUIVEL, C., <i>et al.</i> , "Why Small Caliber Vascular Grafts Fail: A Review of Clinical and Experimental Experience and the Significance of the Interaction of Blood at the Interface," J. Surgical Research, 1986, pp. 1-15, vol. 41.
BK	✓	MATTHEWS <i>et al.</i> , "Vascular Engineering Utilizing Electrospun Collagen," Abstract for Presentation at Engineering Tissues, Hilton Head Island, SC, February 24, 2001.
BL	✓	MATTHEWS <i>et al.</i> , "Electroprocessing: Fabrication of Novel Biocompatible Materials," Abstract for Presentation at the 4th International Symposium on Frontiers in Biomedical Polymers, Williamsburg, VA, Presented May 16, 2001.

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Group Art Unit	1632/1657
Examiner Name	Not Yet Assigned
Attorney Docket Number	49122-0161 (49122-263824)

Sheet 3 of 4

OTHER INFORMATION - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	TECH CENTER 1600/2900
JA	CA ✓	MIKOS, A.G., <i>et al.</i> , "Wetting of poly (L-lactic acid) and poly (DL-lactic-co-glycolic acid) foams for tissue culture," <i>Biomaterials</i> , 1994, pp.55-58, vol. 15, no. 1.	
	CB ✓	MOONEY, D.J., <i>et al.</i> , "Design and Fabrication of Biodegradable Polymer Devices To Engineer Tubular Tissues," <i>Cell Transplantation</i> , 1994, pp. 203-210, vol. 3, no. 2.	
	CC ✓	MOROZOV, V.N. <i>et al.</i> , "Atomic force microscopy of structures produced by electrospraying polymer solutions", <i>International Journal of Mass Spectrometry</i> , 1998, pp. 143-159, Vol. 178.	
	CD ✓	PAWLOWSKI <i>et al.</i> , "Electrospinning a Biodegradable Vascular Tissue Engineering Scaffold," Abstract for Presentation at the 4th International Symposium on Frontiers in Biomedical Polymers, Williamsburg, VA, Presented May 16, 2001.	
	CE ✓	STITZEL <i>et al.</i> , "Electrospraying and Electrospinning of Polymers for Biomedical Applications. Poly (lactic-co-glycolic acid) and Poly (ethylene-co-vinylacetate)." <i>Proc. 32nd Society for the Advancement of Material and Process Engineering (SAMPE) Meeting</i> , Boston, MA, Presented Nov. 7, 2000.	
	CF ✓	STITZEL, J., "Mechanical Design and Development of a Biomimicking, Biodegradable Vascular Graft, Thesis Submitted at Virginia Commonwealth University, Richmond, VA, August 2000, Indexed February 9, 2001.	
	CG ✓	TELEMCO, T. <i>et al.</i> , "Electrospinning Applications in Bioengineering: Fabrication of Bio-Engineered Skeletal Muscle," Poster Presentation at Engineering Tissues, Hilton Head Island, SC, February 25, 2001. (Abstracts available February 21, 2001.)	
	CH ✓	WEINBERG, C. <i>et al.</i> , "A blood vessel model constructed from collagen and cultured vascular cells," <i>Science</i> , 1986, pp. 397-398, vol. 231.	
	CI ✓	WNEK, G., "Electroactive Materials and Systems: Applications to Fuel Cells and Biosensors. Abstract for Presentation at Molecular Geodesics, Inc., October 13 or 14, 1999."	
	CJ ✓	WNEK, G., "Electroactive Materials and Systems: Applications to Fuel Cells and Biosensors," Abstract for Presentation of Materials Science and Engineering Seminar, Virginia Polytechnic Institute and State University, Blacksburg, VA, Presented October 22, 1999. www.eng.vt.edu/eng/materials/seminars/fall99/wnek.html .	

Examiner Signature		Date Considered	14 May 03
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Attorney Docket Number	49122-0161 (49122-263824)

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DA	✓	WNEK, G., "Electrospinning of Biomaterials," Abstract of Presentation at University of Massachusetts Lowell Memorial Service and Technical Symposium Honoring Sukant K. Tripathy, Presented in Lowell, MA, February 16, 2001.	
DB	✓	WNEK, G.E., Bowlin, G.L., and Simpson, D.G., "Electrospraying and Electrospinning of Polymers for Tissue Engineering/Biomaterials Applications." Abstract for Presentation at Poly Millennial 2000 an International Symposium by the Division of Polymer Chemistry/American Chemical Society, Hawaii, Presented December 10, 2000.	
DC	✓	WNEK, G., "Production of Microfibers by Electrospinning," Abstract for Presentation at Phillip Morris Technical Center, Richmond, VA, Presented February 13, 2001.	
DD	✓	WNEK, G., "Thinking Small About Old Polymers at the Medicine/Engineering Interface," Abstract for Presentation at Program in Polymer Science and Technology Seminar Series, Presented at Massachusetts Institute of Technology, Cambridge, MA, May 16, 2001.	
DE	✓	WNEK, G., "Thinking Small About Old Polymers at the Medicine/Engineering Interface," Abstract for Presentation at Chemical Engineering Seminar, Worcester Polytechnic Institute, Worcester, MA, Presented October 18, 2001.	
DF	✓	ZÜND, G. <i>et al.</i> , "Tissue engineering: A new approach in cardiovascular surgery; Seeding of human fibroblasts followed by human endothelial cells on resorbable mesh," European Journal of Cardio-thoracic Surgery, 1998, pp.160-164, vol. 13.	

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Date Considered

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122-263824)

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Group Art Unit	1632-1657
Examiner Name	Not Yet Assigned
Attorney Docket Number	49122-0161 (49122-263824)

Sheet	1	of	1
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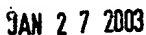
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U.S. PATENT DOCUMENTS

Examiner Initials	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
<i>[Signature]</i>	AA	US2001/0003148	A1	Coffee	06-07-2001	RECEIVED JAN 28 2003 TECH CENTER 1600/2900

FOREIGN PATENT DOCUMENTS

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14 May 83

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